**4.3 Definite Integration**

1. Explain why (or why not) is integrable on the interval .

2. Give an example of a function that is integrable but not continuous on .

**Sketch the region whose area is represented by each integral.**

3. 4. 5.

**Evaluate the integrals given for #6-#8 using the following information:**

6. 7. 8.

**Given and , evaluate #9-#11**

9. 10. 11.

12. Evaluate, if possible,

13. Evaluate, if possible, **given** and *f(x)* is an even function.

14. Explain why integration of odd functions is so easy when the bounds additive inverses.

15. Evaluate, if possible, .